

Title (en)  
Para-aramide dope of low degree of polymerization, para-aramide fiber and para-aramide pulp produced therefrom and processes for producing the same

Title (de)  
Para-Aramid Spinnlösung mit niederem Polymerisationsgrad, para-Aramid Faser und para-Aramid Faserhalbstoff daraus und Verfahren zu ihrer Herstellung

Title (fr)  
Solution à filer de para-aramide à bas degré de polymérisation, fibre de para-aramide et demi-produit de fibres de para-aramide fabriqué à partir de celle-ci et procédés de production de ceux-ci

Publication  
**EP 0572002 B1 20000830 (EN)**

Application  
**EP 93108581 A 19930527**

Priority  
JP 13673392 A 19920528

Abstract (en)  
[origin: EP0572002A2] A para-aramide dope of low degree of polymerisation exhibiting an optical anisotropy containing 4-10% by weight of a para-aramide having an intrinsic viscosity of 1.0-2.5 dl/g and 2-10% by weight of an alkali metal chloride or an alkaline earth metal chloride in a polar amide solvent; a para-aramide fiber obtained by spinning the above-mentioned para-aramide dope of low degree of polymerization; a para-aramide pulp obtained by cutting the above-mentioned para-aramide fiber into a short fiber, mechanically fibrillating the short fiber with a high shearing force and thereafter drying the fibrillated short fiber; a process for producing a para-aramide fiber which comprises adding 0.94-0.99 mole of a para-oriented aromatic dicarboxylic acid halide per 1.00 mole of a para-oriented aromatic diamine in a polar amide solvent in which 2-10% by weight of an alkali metal chloride or an alkaline earth metal chloride is dissolved, carrying out a polymerization at a temperature of -20 DEG C to 50 DEG C to form a para-aramide dope of low degree of polymerization exhibiting an optical anisotropy and having a para-aramide concentration of 4-10% by weight, and spinning the dope; and a process for producing a para-aramide pulp which comprises cutting the above-mentioned para-aramide fiber into a short fiber, mechanically fibrillating the short fiber with a high shearing force, and thereafter drying the fibrillated short fiber.

IPC 1-7  
**D01F 6/60**; **D01F 1/02**; **D01F 1/10**; **C08L 77/10**

IPC 8 full level  
**C08J 3/09** (2006.01); **C08L 77/10** (2006.01); **D01F 6/60** (2006.01); **D21H 13/26** (2006.01)

CPC (source: EP KR US)  
**C08G 69/32** (2013.01 - KR); **C08J 3/096** (2013.01 - EP KR US); **C08L 77/10** (2013.01 - EP KR US); **D01D 1/02** (2013.01 - KR); **D01F 6/605** (2013.01 - EP KR US); **D21H 13/26** (2013.01 - EP KR US); **C08J 2377/10** (2013.01 - EP KR US); **Y10S 264/47** (2013.01 - EP US)

Cited by  
WO2005059247A1; AU2004299598B2; EP1277880A1; EP0757071A3; US9976234B2; US6942757B1; WO2014104648A1; WO9514815A1; WO9600323A1; US9194061B2; US7754797B2; US8415417B2

Designated contracting state (EPC)  
DE ES FR GB IE IT LU NL

DOCDB simple family (publication)  
**EP 0572002 A2 19931201**; **EP 0572002 A3 19940216**; **EP 0572002 B1 20000830**; AU 3870793 A 19931202; AU 671627 B2 19960905; BR 9302084 A 19931207; CA 2097037 A1 19931129; CA 2097037 C 20040406; CN 1057137 C 20001004; CN 1082634 A 19940223; DE 69329309 D1 20001005; DE 69329309 T2 20010104; ES 2149183 T3 20001101; KR 100292739 B1 20011024; KR 930023403 A 19931218; RU 2113561 C1 19980620; TW 226417 B 19940711; UA 39855 C2 20010716; US 5442003 A 19950815; ZA 933720 B 19940727

DOCDB simple family (application)  
**EP 93108581 A 19930527**; AU 3870793 A 19930521; BR 9302084 A 19930527; CA 2097037 A 19930526; CN 93106494 A 19930528; DE 69329309 T 19930527; ES 93108581 T 19930527; KR 930009378 A 19930527; RU 93005351 A 19930527; TW 82104042 A 19930521; UA 93004484 A 19930615; US 6700093 A 19930525; ZA 933720 A 19930527